

ABOUT THE SANCTUARY

Olympic Coast National Marine Sanctuary spans 3,189 square miles of marine waters off the rugged Olympic Peninsula coastline. The sanctuary extends 25 to 50 miles seaward, covering much of the continental shelf and several major submarine canyons.

The sanctuary protects a productive upwelling zone - home to rich marine mammal and seabird faunas, diverse populations of kelp and intertidal algae, and thriving invertebrate communities. The sanctuary is also rich in cultural resources, with over 150 documented historical shipwrecks and the vibrant contemporary cultures of Makah, Quileute, and Hoh Indian Tribes, and Quinault Nation.

OFFICE REPORT

OLYMPIC COAST NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES

Organized by Olympic Coast National Marine Sanctuary (OCNMS or sanctuary) management plan priority areas

TREATY TRUST RESPONSIBILITIES

Olympic Coast Intergovernmental Policy Council Meeting

Olympic Coast Intergovernmental Policy Council (IPC) met on February 4 in Squaxin Island, Washington to review 2014 IPC priorities based on Olympic Coast National Marine Sanctuary Management Plan action plans that the sanctuary anticipates implementing this year. Topics also discussed include evaluation of progress towards original IPC commitments and the budget outlook for 2014 and beyond.

40th Anniversary of Boldt Decision Celebrated

Olympic Coast National Marine Sanctuary Superintendent Carol Bernthal attended a day-long celebration of the 40th anniversary of *United States versus Washington State*, commonly known as the Boldt decision, the landmark court ruling that affirmed tribal fishing rights and

access in Washington State. The event, hosted by the Squaxin Island Tribe, included presentations by tribal elders and leaders who provided their perspectives on the events leading up to the Boldt decision and implementation afterwards, tribal and Department of Justice attorneys directed involved in the court proceedings, and state agency directors who helped develop co management principles and programs following the decision. Tribal youth were also strongly represented as "witnesses" to the event with the intention that they understand the history and significance and encourage pride in their cultural heritage.

Sanctuary Training on NOAA Consultation Policy

On November 12, 2013, NOAA finalized their procedures for complying to Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments." These procedures are documented in a hand book, "NOAA Procedures for Government-to-Government Consultation With Federally Recognized Indian Tribes and Alaska Native Corporations". The NOAA 13175 Policy requires that all NOAA personnel directly involved with outreach, consultation, and operations with tribal governments receive appropriate training so that they can act consistently with the procedures and policies set forth in this Handbook. Deputy Superintendent George Galasso conducted preliminary training for OCNMS staff on the policy. Training included a general overview of treaties and examples of how OCNMS has worked with the coastal treaty tribes since the 1994 designation of the sanctuary. OCNMS plans to develop a more detailed training that focuses on the four coastal treaty tribes.

ACHIEVE EFFECTIVE AND COORDINATED MANAGEMENT

NOAA and OCNMS Investigate Scrap Metal Discovered on Sanctuary Seafloor

NOAA Ship *Oscar Dyson* assisted Olympic Coast National Marine Sanctuary in investigating an incident involving crushed cars discovered on the sanctuary seafloor. In July 2013, a Makah tribal fisherman brought up three crushed cars in his fishing nets and reported other gear snag points spread over several kilometers of seafloor. In February 2014, sanctuary staff coordinated with the *Oscar Dyson*, which supports NOAA's Alaska Fisheries Science Center, to conduct a multibeam sonar survey while on a routine transit through the sanctuary. This effort provided higher resolution imagery than the sanctuary's current data holdings and served to identify anomalies on the seafloor and guide future magnetometer and other sonar surveys planned by the sanctuary. Further survey effort is necessary to investigate the scale of this incident, which could involve numerous crushed cars lost from barge transits to metal recycling facilities between Canada and the U.S. Lost cargo can injure habitat, limit access to fishing grounds and pose a safety hazard to trawl fishing vessels.

NOAA Discusses Enforcement of Sanctuary Regulations

Improved enforcement of Olympic Coast National Marine Sanctuary regulations was discussed by staff from the Office of National Marine Sanctuaries, Office of the General Counsel and the Office of Law Enforcement. Options for addressing the abandonment of sunken vessels in the sanctuary were discussed as well as a review of recent incidents.

Federal Managers Meet

Olympic Coast National Marine Sanctuary Superintendent Carol Bernthal, Olympic National Park (ONP) Superintendent Sarah Creachbaum, and Washington Islands National Wildlife Refuge Complex Project Leader Jennifer Brown-Scott and their deputies met to discuss issues of common interest. The sanctuary, park and refuges off the Olympic Coast of Washington share resources, boundaries and many issues. Staff from Representative Kilmer and Senator Cantwell also attended. Some of the issues discussed included ONP's Wilderness Stewardship Plan, a proposed Marine Campus on the Port Angeles waterfront, 50th anniversary of park wilderness, 20th anniversary of sanctuary designation, sea star wasting disease, marine debris, and collaborative research.

Canadian Coast Guard Conducts Outreach On Behalf Of OCNMS

United States and Canadian Coast Guard jointly manage vessel traffic in vicinity of our shared waters through a Cooperative Vessel Traffic System (CVTS). This highly collaborative and successful approach results in vessel traffic in the northern portion of Olympic Coast National Marine Sanctuary being managed by Canadian Coast Guard vessel traffic managers. This includes overseeing an internationally designated Area to be Avoided (ATBA), which was designated to mitigate from the potential of oil spills. The local Canadian Coast Guard recently conducted outreach with the local Royal Canadian Navy (RCN) command to ensure that RCN vessels were aware of the provisions of the ATBA.

Coastal Resource Managers Thank Japanese Support for Marine Debris Removal

Olympic Coast National Marine Sanctuary (OCNMS) hosted a gathering of federal agencies and non-governmental organizations who have been working together for the past three years to address marine debris, including sources originating from the 2011 Japanese tsunami which traveled across the Pacific Ocean and landed on West Coast beaches, including Olympic Coast. At the request of NOAA's PNW Marine Debris Coordinator, Nir Barnea, the group briefed Japanese Senior Consul Dodo on joint efforts to respond to public concerns regarding marine debris derived from the Japanese tsunami. The group expressed their sincere appreciation for the proactive efforts by the Japanese government, including providing funding which allowed coastal managers to successfully remove the Misawa Dock which washed ashore in OCNMS and Olympic National Park in December 2013. Without these funds, it would have been impossible to completely remove the dock from this wilderness coastline.

OCNMS Participation in COASST Advisory Board Meeting

Carol Bernthal and Heidi Pedersen attended a two day Coastal Observation And Seabird Survey Team (COASST) Advisory Board meeting in Seattle to discuss the future direction of citizen science programs supported by the University of Washington. The University of Washington, in partnership with OCNMS and other organizations, supports COASST and was recently awarded a \$2.7 million National Science Foundation grant to design and incorporate marine debris monitoring into COASST and update the COASST website and data management capabilities.

Quillayute River Dredging Planned For Fall 2014

U.S. Army Corps of Engineers has received funding to complete dredging of the river navigation channel and Quileute Harbor Marina at the Quillayute River in the fall of 2014. Timing of dredging operations is scheduled to minimize impacts of suspended fine material and turbid waters on forage fish spawning on adjacent shores of Rialto Beach. Assuming a contract is awarded, outer channel dredging between the marina and James Island will start September 1, with about 15,000 cubic yards of generally coarser material to Site A (the open space at the base of the jetty, adjacent to the north end of First Beach). This material will be allowed to "dewater" on site and will be held for use in shoreline stabilization and restoration work, likely to be nourishment at First Beach on the south side of the jetty starting November to prevent undercutting the jetty at that location. Inner channel dredging will be delayed until October to avoid impacts to intertidal forage fish spawning. These materials, approximately 85,000 cubic yards, will be deposited north of the river on the southern extension of Rialto Beach near Little James Island to reinforce this landform and nourish sediments in the area. Dredging in 2014 should include the marina area under the slips where water is very shallow at extreme low tides.

CONDUCT COLLABORATIVE RESEARCH, ASSESSMENTS AND MONITORING TO INFORM ECOSYSTEM-BASED MANAGEMENT

Defining Habitat Protection for the Future

Olympic Coast National Marine Sanctuary (OCNMS) and Washington Department of Fish and Wildlife (WDFW) have been working together for the past year to define a proposal to modify an Essential Fish Habitat (EFH) designation within Olympic Coast National Marine Sanctuary to protect biogenic habitats and associated groundfish populations. The proposal to amend the existing conservation area, Olympic 2, was jointly submitted as part of a five year review of EFH through the Pacific Fishery Management Council. The proposal generated considerable concern by Coastal Treaty Tribes as to closing additional fishing areas within their Usual and Accustomed Areas (although the proposal explicitly did not apply to tribal fisheries) or displacement of fishing effort as a result of an enlarged area into adjoining Tribal U&As. After discussions with coastal tribes through the Olympic Coast Intergovernmental Policy Council, OCNMS and WDFW agreed to withdraw the Olympic 2 proposal from further consideration at this time based on a commitment from IPC members to work together to review the available data and discuss whether and how to develop and consider future proposals for specific habitat or broader ecosystem protection within OCNMS. The issue, as part of an overall review of EFH designations, was discussed at a Pacific Fishery Management Council in early March, with the Council deciding to proceed with further evaluation of submitted proposals, excluding Olympic 2. PFMC will further scope out the issue and decide what proposals to more thoroughly evaluate at their September meeting.

IMPROVE OCEAN LITERACY

OCNMS Presents at Ocean Acidification Workshop

Olympic Coast National Marine Sanctuary (OCNMS) staff Jacqueline Laverdure presented "The Ocean's Recipe for Success" at Pacific Education Institute Ocean Acidification Workshop hosted by Grays Harbor College. Twenty-four middle and high school teachers from Grays Harbor and Pacific counties attended the event. The focus of the workshop was on changing ocean chemistry and how this change is impacting shellfish farmers and fishing in Grays Harbor and around the globe. Presenters representing OCNMS, Taylor Shellfish, Quinault Indian Nation and Suquamish Tribe provided ocean acidification related resources for teaching about ocean ecosystems, and the shellfish and fishing industries in the classroom.

Coastal Observation and Seabird Survey Team Offers Training in Port Angeles

Coastal Observation and Seabird Survey Team (COASST) will host a free training session on Saturday, April 5 at the Clallam County Courthouse in Port Angeles from 11:00am to 5:00pm. COASST is a citizen science project dedicated to involving volunteers in the collection of high quality data on the status of coastal beaches and trends of seabirds. Their goal is to assist government agencies and other organizations in making informed management and conservation decisions, and to promote proactive citizen involvement and action. COASST volunteers systematically count and identify bird carcasses that wash ashore along ocean beaches from northern California to Alaska. Volunteers do not need experience with birds, just a commitment to survey a specific beach each month. For more information, contact coasst@uw.edu or 206-221-6893.

OCNMS Participates in Annual Beachcombers Fun Fair

Olympic Coast National Marine Sanctuary (OCNMS) participated in the 26th annual Beachcombers Fun Fair on March 1-2 in Ocean Shores, Washington. The event, attended by approximately 2,000 people, featured exhibits, seminars, informational booths, vendors as well as children's activities and beach walks. At OCNMS's interactive educational booth, participants learned about the citizen science programs including Coastal Observation and Seabird Survey Team (COASST) and NOAA's Marine Debris Program national marine debris monitoring efforts. OCNMS delivered a one hour presentation about both citizen science programs.



OCNMS Teams With Seattle Aquarium, PBS KCTS9 and Taylor Shellfish Educate Outer Coast Teachers

Olympic Coast National Marine Sanctuary (OCNMS) presented "The Ocean's Recipe for Success" to ten North Olympic Coast elementary school teachers at "Otters, Ecosystems and Ocean Acidification in Washington Waters" teacher professional development workshop in Clallam Bay. The focus of the workshop was on changing ocean chemistry and how this change is impacting marine food webs, as well as shellfish farming in Washington and around the globe. Keynote speaker Dr. Shawn Larson, Curator of Conservation and Research at Seattle Aquarium, presented on sea otter research and impacts of ocean acidification. Other presenters from Seattle Aquarium, Taylor Shellfish and QUEST Northwest also provided ocean acidification related resources for teaching about ocean ecosystems, and the shellfish and fishing industries in the classroom.

Olympic Coast National Marine Sanctuary Supports Local Science Night

More than 350 students and family members in the Port Angeles community attended Franklin Elementary School's Science Night. The annual event was supported by seventeen local organizations, including Olympic Coast National Marine Sanctuary (OCNMS). Participants who visited the OCNMS education booth partook in a hands-on intertidal monitoring station to learn about intertidal ecology and organisms. Families also learned about the sanctuary.



Olympic Coast Discovery Center Welcomed Port Angeles Downtown Association Tours

The Port Angeles Downtown Association offered free tours of historic downtown buildings on March 15 as part of its annual "Second Story Story". The Olympic Coast Discovery Center, the visitor center for Olympic Coast National Marine Sanctuary, was featured on this tour.

<http://www.peninsuladailynews.com/article/20140314/news/303149996/weekend-saturday-tour-to-reveal-port-angeles-downtown-8217-s-second>

OCNMS 2013 Hollings Scholar Wins Shoals Marine Laboratory Award for Excellence

Vanessa Constant, a 2013 Hollings Scholar at OCNMS, was recently awarded the John M. Anderson Award for Excellence in Natural History from Shoals Marine Laboratory Award. The award recognizes a top undergraduate student who has demonstrated sustained excellence in coursework and research on Appledore Island off the coast of Portsmouth, NH, where the renowned marine science teaching and research facility is located. Vanessa is a senior at Cornell University majoring in Natural Resources with a minor in Marine Biology. During her summer with OCNMS she conducted a change over time analysis of oceanographic data for temperature in OCNMS, producing foundational graphical representations of historic temperature data collected throughout the sanctuary. She is the inaugural recipient of this new annual award:



<http://www.news.cornell.edu/stories/2014/02/cornell-senior-receives-new-shoals-lab-award>

CONSERVE NATURAL RESOURCES IN THE SANCTUARY

Remote Areas Cleanup Continues with OCNMS Coordination

Washington Conservation Corps (WCC) Veterans crews completed another successful week of shoreline debris cleanup on the outer coast of Washington. Olympic Coast National Marine Sanctuary has been coordinating their efforts in collaboration with Olympic National Park and the Makah Tribe. WCC veterans crews were created to provide veterans employment opportunity and are fully funded by Washington State, with a focus on shoreline cleanup and restoration. On the sanctuary shores, the crews are tackling debris from areas too remote for volunteer-supported cleanup efforts. In March two crews were available to complete removal of the last identified garbage cache sites on the outer coast. They packed out 525 pounds of debris, mostly plastic, from areas as far as five miles from the nearest vehicle access point. Since October 2013 they have removed almost 2,500 pounds of debris.

Commercial Fishing Interests and NOAA Collaborate on Scientific Equipment Siting

In support of a new NOAA initiative to characterize long-term trends and changes in the ambient sound field for coastal oceans, Olympic Coast National Marine Sanctuary coordinated consultations between principal investigators and commercial fishing interests off the Washington Coast on siting of a Noise Reference Monitoring Network mooring. Sanctuary geographer, Nancy Wright, assisted with geographic information system analysis with high resolution bathymetry and seafloor habitat characterization overlaid with generalized fishing activity maps to evaluate the risk of interaction with fishing gear during anticipated two-year deployment of the moorings. Several alternative mooring locations were proposed and evaluated by representatives from tribal and non-tribal fisheries, including mid-water and bottom trawlers and fixed gear. Resolution was reached with a mooring location that meets the science needs for the project and avoids conflict with bottom contact and mid-water fishing activity.

UNDERSTANDING THE SANCTUARY'S CULTURAL, HISTORICAL AND SOCIOECONOMIC SIGNIFICANCE

Olympic Coast National Marine Sanctuary Updates Maritime Heritage Database

ONMS Maritime Heritage Program is in the process of updating the OCNMS Maritime Heritage Resources Database. Under the National Historic Preservation Act and the National Marine Sanctuaries Act, NOAA has stewardship responsibilities to historic properties within sanctuary boundaries. When evaluating sanctuary activities and permits OCNMS must consider

potential effects on historic properties. To-date 120 of 216 records has been updated with additional research. Once the review is complete we will share the data with the Washington Department of Historic Preservation.

National Centers for Coastal Ocean Science (NCCOS) to Assess Social Values in OCNMS

The NCCOS Hollings Marine Laboratory has received funding support to conduct a research project to assess social values and perceptions of attributes in Olympic Coast National Marine Sanctuary. The study will explore the connections between humans and the places they live, work, and play. Specifically, how people use, value, and depend on the ecosystem services of coasts and the coastal ocean. Using established social science methods combined with the latest in geographic information systems research, products will include maps that describe the connections between humans and their environment. By incorporating a better understanding of how and why people value protected places into the decision-making process, managers can avoid potential conflicts between various user groups and plan for sustainable use by constituents. The principle investigator Dr. Susan Lovelace will be presenting details on the proposed study at the March Advisory Council meeting.

CONGRESSIONAL ACTIVITIES

Representatives from Representative Derek Kilmer and Senator Maria Cantwell offices participated in a quarterly meeting of federal lands/water management agencies that include Olympic Coast National Marine Sanctuary, Olympic National Park (ONP), and USFWS's Washington Maritime Islands Refuge Complex. Each agency provided an update on critical issues underway and discussed topics of mutual concerns including ONP's Wilderness Stewardship Plan, monitoring and response to marine debris, research related to ocean acidification and the recent outbreak of seastar wasting disease, and other agency specific topics.

SANCTUARY PERMITTING

Issued Permits and Approvals

OCNMS-2014-002 - Dr. Florian Graner, Sealife Productions

Project Title: Cineflex Aerial Filming of Olympic Coast

Permitted Activity: low altitude overflight within the overflight restriction zone of Olympic Coast National Marine Sanctuary

Project Location: over waters of the Olympic Coast National Marine Sanctuary with approach to shore near Cape Flattery, Point of the Arches, Hoh River

Permit Duration: from issuance date through March 28, 2014

Comments: The application was received in 2013 but permit issuance delayed by interagency consultation for ESA species. The flight and filming was accomplished on March 12, 2014.

Noise Reference Monitoring Network Update

Originally proposed as a mooring installation in OCNMS under the Superintendent's Permit with a Stellwagen Bank sanctuary staff member as a Principal Investigator, this mooring will be located 11 nmi beyond OCNMS boundaries at 950m depth and is not subject to a sanctuary permit. The Noise Reference Monitoring Network is a new NOAA initiative with 9 moorings low-frequency acoustic receivers planned around the country to characterize the ambient sound environment, or ocean noise. This mooring will have an additional receiver to record higher frequency vocalizations to document killer whale presence. Deployment is planned for 2 years. OCNMS facilitated consultations with tribal and non-tribal commercial fisheries, including mid-water and bottom trawlers and fixed gear, who were engaged in the siting process. Several alternative locations were evaluated, and resolution was reached with a mooring location that meets the science needs for the project and avoids conflict with active fisheries. Collaborative engagement with fishing interests can support information sharing and siting decisions that will reduce the risk to instrumentation and increase the probability that data will be retrieved at the end of the deployment.

Pending Permit Requests

OCNMS-2014-003 – Joe Evenson, Washington Department of Fish and Wildlife

Project Title: WDFW/PSEMP Annual Winter Aerial Winter Survey of Marine Birds and Mammals

Permitted Activity: low altitude overflight within the overflight restriction zone of Olympic Coast National Marine Sanctuary

Project Location: over waters of the Olympic Coast National Marine Sanctuary between Koitlah Point and Cape Flattery

Permit Duration: to be determined; probably a 5-year permit.

Comment: This permit has not been processed because flights are not planned until next winter.

LEARN ABOUT YOUR SANCTUARY / NATURAL HISTORY

New information about resources in the sanctuary is always emerging. This section of the office report is reserved for sharing brief descriptions of recent studies, observations, findings, reports, and forecasts related to the sanctuary.

OCNMS Co-Authored Presentation at Western Groundfish Conference

OCNMS staff Ed Bowlby and Jennifer Bright co-authored a presentation that Katie Wrubel of The Nature Conservancy gave at the Western Groundfish Conference in Victoria, B.C., entitled, “*Fish-habitat associations and the importance of deep-sea corals in Olympic Coast National Marine Sanctuary.*” Declining populations of commercial groundfish have prompted fishery managers to identify essential fish habitat (EFH) important for the recovery of fish stocks, and designated with some level of protection. However, an EFH Conservation Area was designated with little information on fish distributions and habitat requirements in deep-sea ecosystems off of Washington State. In 2006 and 2008 remotely operated vehicle surveys were conducted to identify fish-habitat associations as well as to determine the importance of deep-sea corals as fish habitat. Four major habitat and associated species assemblages were identified from canonical correspondence analysis: 1) boulder habitats in which the majority of rockfish were associated; 2) rock ridge habitats with deep-sea corals associated; 3) coarse soft sediments with greenstriped rockfish associated; and 4) mud habitats with flatfish associated. Low-relief habitats with corals had higher fish abundance than similar habitats without corals; however fish abundance was significantly higher on boulder habitats without corals than with corals present. By parsing out the importance of corals as fish habitat over similar physical substrates we found that structure is important in rockfish habitat use on low-relief substrates. Thus, deep-sea corals are likely important components of EFH over lower complexity or mixed substrates, but may not be important in high-relief complex boulder habitats. This study provides baseline data for current conditions and future comparisons to determine the efficacy of the EFH Conservation Area in rebuilding fish stocks in deep-sea ecosystems.

OCNMS Data Included in HARP Publication

A recent publication based on data from HARP (high-frequency acoustic recording package) buoys, two of which are located off the coast of Washington including one permitted in Olympic Coast National Marine Sanctuary, revealed patterns of echolocation signals from beaked whales in the North Pacific. These findings are significant because relatively little is known about the abundance, ecology and behavior of beaked whales, which are considered elusive and difficult to distinguish visually at sea. Led by researchers from Scripps Institution of Oceanography at the University of California, this project linked recorded sounds to vocalization patterns unique to different species of whales. One species, Baird’s beaked whale (*Berardius bairdii*) was documented from the mooring in OCNMS at 100m depth off Cape Elizabeth, which is shallower than areas frequented by beaked whales. Two additional species were documented at the Quinault Canyon site in 1,400m off Washington, Stejneger’s beaked whale (*Mesoplodon stejnegeri*) and Blainville’s beaked whale (*Mesoplodon densirostris*). Stejneger’s beaked whale vocalizations were frequent enough to indicate their presence on 20-4% of the recording period, all occurring in winter months.

Journal Articles Published About OCNMS Deep-Sea Specimens

Two recent journal articles were published concerning deep-sea specimens collected in OCNMS during a 2008 collaborative survey with Canadian colleagues. The ROPOS ROV surveyed and collected samples from the Dixon Entrance of British Columbia and OCNMS. OCNMS staff who participated aboard the Canadian CG Ship *John P. Tully* during the surveys included Ed Bowlby and Jennifer Bright. A new species of glass sponge was discovered during the 2008 survey in OCNMS (*Oopsacas olympicus*). Dead colonies of red tree corals (*Primnoa pacifica*) were also collected during the cruise for growth rate studies. A publication by Aranha et al. (2014) noted OCNMS samples had higher growth rates than those collected in BC, and both sites revealed slightly higher growth rates than the published literature of red tree corals in Gulf of Alaska, and more than four times the growth rates of sister species *Primnoa resedaeformis* in the northwest Atlantic. They postulated that primary productivity is likely a more important driver of geographic variation in *Primnoa* growth rates than temperature or current strength, and noted the documented high primary productivity in OCNMS from oceanographic records. One of the *Primnoa* samples that was aged from OCNMS will eventually be returned to us for display.

REGIONAL / NATIONAL ONMS NEWS

ONMS Holds First Meeting of the Sanctuary System Business Advisory Council

After nearly a year in the development, Office of National Marine Sanctuaries (ONMS) convened the first meeting of its Sanctuary System Business Advisory Council (BAC) on January 29. The Council is the first program-level advisory council for ONMS and was founded to help ONMS better engage corporate partners. Eight of nine confirmed members attended the meeting: TripAdvisor, Royal Caribbean, Johnson Outdoors, Maersk, Hess, Disney, National Geographic, and the

Rockefeller Foundation. The members were introduced to the sanctuary system through a series of presentations and interactive discussions with ONMS staff, including what they hoped to gain from being members of the Council, ways that ONMS could engage the corporate sector as partners, and how the council should operate in the future. The members all expressed their appreciation at being appointed as members of the Council and as a group were clear in communicating their commitment to ocean conservation and their desire to help the sanctuary system. Next steps will include completing the roster of members, determining a future meeting schedule and determining the top priorities for the Council's attention.

National Aquarium Lecture Series Highlights National Marine Sanctuaries



Office of National Marine Sanctuaries (ONMS) and the National Marine Sanctuary Foundation partnered with the National Aquarium in Baltimore, MD to bring visitors a glimpse of the wonders beneath the waves and a view of contemporary ocean issues in the 2014 Marjorie Lynn Bank Lecture Series. Through this series of lectures titled, "National Marine Sanctuaries: Special ocean places and their champions," the aquarium offers the change to meet ocean experts who work the front line of ocean conservation and exploration. Starting February 27, speakers will include oceanographer and explorer Dr. Sylvia Earle, photographer Brian Skerry, filmmaker Bob Talbot, and whale disentanglement expert Ed Lyman.

Dr. Kathryn Sullivan Confirmed New NOAA Administrator

Dr. Kathryn Sullivan was confirmed by the U.S. Senate as the Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator on March 6, 2014. She is a distinguished scientist, renowned astronaut and explorer. She has previously held the positions of Assistant Secretary of Commerce for Environmental Observation and Predictions, Deputy Administrator, NOAA's Chief Scientist, Director of the Battelle Center for Mathematics and Science Education Policy at Ohio State University, and President and CEO of Center of Science and Industry in Columbus, OH. Dr. Sullivan was one of the first six women selected to join the NASA astronaut corps in 1978 and holds the distinction of being the first American woman to walk in space. She flew on three shuttle missions during her 15-year tenure, including the mission that deployed the Hubble Space Telescope. Among her many accomplishments, Dr. Sullivan had also served on the National Science Board from 2004-10 and as oceanographer in the U.S. Navy Reserve (1988-2006). She holds a bachelor's degree in earth sciences from the University of California at Santa Cruz and a doctorate in geology from Dalhousie University in Canada.

MPA Center Launches New Blog with Open Channels

The Marine Protected Area (MPA) Center launched a new blog with partner organization Open Channels, the online forum for ocean planning and management by the publishers of MPA News. The blog is intended to spark dialogue about the role of marine protected areas in reaching marine conservation goals—what works, what doesn't and what needs to be done to meet current and emerging opportunities and challenges. The blog will appear monthly, helping expand the audience for the MPA Center by engaging a broader community of ocean and marine practitioners. The blog can be found at <http://openchannels.org/blog/cmwhale/welcome-national-marine-protected-areas-centers-new-blog>.

NEWS COVERAGE

Data Shows Endangered Orca Cruised Salish Sea

NOAA research found satellite-linked tag showing that the orca known as L87 spent January throughout the Salish Sea and out to the Washington coast, reaching as far south as Cape Alava. The research is part of efforts to better understand winter movements of southern resident orcas.

<http://www.sfgate.com/default/article/Data-shows-endangered-orca-cruised-Salish-Sea-5189890.php>

Family, Business Ties Drew Alaska Firm to Port Angeles Waterfront Development Project

The Alaska-based business Neeser Construction Inc., which plans to purchase the Oak Street waterfront property in Port Angeles, has ties to Western Washington and Bainbridge Island. CEO Jerry Neeser intends to build a marine science and conference center if the sale goes through.

<http://www.peninsuladailynews.com/article/20140125/news/301259986/0/SEARCH>

Marine Center in Port Angeles Eyes July Start for Building

Neeser Construction Inc. and Port Angeles officials held a building-permit pre-application conference as part of the process of the company's application for a permit to build a marine science-conference center complex on the waterfront, with hopes to start building in July.

<http://www.peninsuladailynews.com/article/20140207/NEWS/302079990/marine-center-in-port-angeles-eyes-july-start-for-building>

Boldt Decision Cleared Path for More Landmark Tribal Rights Changes

The Boldt Decision did not only bolster tribes' status as sovereign nations by designating co-management of fishing resources, it also set precedence for government-to-government cooperation in other areas.

<http://www.thenewstribune.com/2014/02/09/3036044/boldt-decision-cleared-path-for.html>

Boldt Decision Has Rippling Effects 40 Years Later

George Hugo Boldt was the federal judge who ruled in *United States v. Washington* concerning tribal fishing rights in 1974. The court case now referred to as the Boldt Decision reaffirmed the right of most Washington tribes to act as co-managers, alongside the state, of salmon and continue to harvest it. For four decades, the decision has shaped other political issues in the state.

<http://www.washingtontimes.com/news/2014/feb/9/boldt-decision-has-rippling-effects-40-years-later/?page=all>

40 Years After Boldt, the Fight Goes on Over Fewer and Fewer Fish

The formula for sharing Washington State's salmon was established 40 years ago by federal judge George Hugo Boldt, legally entitling tribes with half of the harvestable salmon returning to traditional waters. Total catches in recent years have not been close to the 50-50 mandate, swinging in favor of one side or the other, with salmon still listed on the Endangered Species Act.

http://seattletimes.com/html/pacificnw/2022730157_boltddecision40yeaslatercover2xml.html

Historical "Cibu-d" Halibut Hook Draws Together the Modern Makah Community in Unexpected Ways

A student project brought the Makah together to make traditional halibut hooks to test how halibut catch and by-catch compared between the cibu-d hooks and circle hooks. Makah student Alex Wise was awarded Art Feiro Science Student of the Year award for his efforts.

<http://www.peninsuladailynews.com/article/20140309/NEWS/303099997/historical-halibut-hook-draws-community-together-for-modern-purpose>

What We Know—And Don't Know—About Seat Star Die-Off

Scientists are trying to find the cause of a mass Pacific Coast sea star die-off, but there is no known or identified pattern. Plastic pollutions, ocean acidification and Fukushima radiation have been ruled out as culprits. Sea stars populations are expected to recover over time.

<http://blogs.kqed.org/science/2014/03/07/what-we-know-and-dont-know-about-the-sea-star-die-off>

"Resident" Gray Whales Return to Puget Sound

A male gray whale was the first of a small group of gray whales that spend a few months of spring in northern Puget Sound. This peculiar of gray whales breaks off the main northbound Pacific Coast migration to feed on ghost shrimp before migrating north to Alaskan waters.

<http://www.seattlepi.com/default/article/Resident-gray-whales-return-to-Puget-Sound-5288585.php>

Fish Living Near the Equator Will Not Thrive in the Warmer Oceans of the Future

According to an international team of researchers, the rapid pace of climate change is threatening the future presence of fish near the equator.

<http://phys.org/news/2014-02-fish-equator-warmer-oceans-future.html>

Ninety-Five Per Cent of World's Fish Hide in Mesopelagic Zone

An international team of marine biologists has found mesopelagic fish in the earth's oceans constitute 10 to 30 times more biomass than previously thought.

<http://phys.org/news/2014-03-ninety-five-cent-world-fish-mesopelagic.html#jCp>

Study: Arctic Getting Darker, Making Earth Warmer

A new study found that the Arctic is not as bright and white as it used to be because of more ice melting in the ocean. With more dark, open water in the summer, less of the sun's heat is reflected back into space, resulting in Earth absorbing more heat than expected.

<http://www.nbcnews.com/science/science-news/study-arctic-getting-darker-making-earth-warmer-n32811>

Grant Helps Elliot Slough Become Part of State Preserve

Elliot Slough, east of Aberdeen, will soon be Grays Harbor County's newest protected wetland, with the state Department of Ecology receiving a \$310,000 grant from the federal government. The funds allow protection and restoration of 175 acres of high-quality coastal surge plain.

<http://www.theolympian.com/2014/02/18/2990731/grant-helps-elliott-slough-become.html>

Walrus With Four Tusk and New Species of Whale Among Fossils Found in CA's Half Moon Bay

A massive cache of mammal fossils was discovered at Half Moon Bay in northern California which included a walrus with four tusks and a small whale that scientists discovered to be a newly-identified species. The site was characterized by a diverse marine mammal population.

<http://www.isciencetimes.com/articles/6798/20140208/fossil-whale-walrus-half-moon-bay-marine-mammals.htm>

An Undammed River's Sediment Brings New Life Downstream

A team of researchers is studying the Elwha River's nearshore environment, where freshwater meets the saltwater of the Strait of Juan de Fuca. A new ecosystem is forming from the 3 million cubic yards of sediment that have been released so far since the Elwha dam removal.

<http://earthfix.opb.org/water/article/an-undammed-rivers-sediment-flush-delivers-new-hab/>

Drones Over America

The world of commercial drones is explored in a CBS 60 Minutes video, with a brief segment aboard *RV Tatoosh* during the summer 2013 seabird and marine mammal monitoring project.

<http://www.cbsnews.com/videos/drones-over-america>

WEB SITE (<http://olympiccoast.noaa.gov/>)

Follow the OCNMS on Facebook!

<https://www.facebook.com/usolympiccoastgov>

Please take a few moments to peruse the site. Your feedback is greatly appreciated.

*Comments and suggestions can be sent to
Jacqueline.Laverdure@noaa.gov.*

FUN, OCEAN-RELATED WEB SITES

National Oceanic & Atmospheric Administration

<http://www.noaa.gov/>

National Ocean Service

<http://www.nos.noaa.gov/>

Office of National Marine Sanctuaries

<http://www.sanctuaries.nos.noaa.gov/>

NOAA Marine Debris Program

<http://marinedebris.noaa.gov/>

NOAA Online Media Library

<http://sanctuaries.noaa.gov/photos>

Encyclopedia of National Marine Sanctuaries

<http://www8.nos.noaa.gov/onms/park/>

NOAA Ocean Explorer

<http://oceanexplorer.noaa.gov/>

National Data Buoy Center

<http://www.ndbc.noaa.gov/rmd.shtml>

Washington's Ocean Resources

<http://www.ecy.wa.gov/programs/sea/ocean/index.html>

CoastWatch – West Coast Regional Node

<http://coastwatch.pfel.noaa.gov/>

Northwest Association of Networked Ocean Observing Systems

<http://www.nanoos.org/>

NOAA's Pacific Marine Environmental Laboratory

<http://www.pmel.noaa.gov/>

Learn More About Your Sanctuary

The Sanctuary Office Report is produced bi-monthly by the Olympic Coast National Marine Sanctuary in conjunction with Sanctuary Advisory Council meetings. To learn more about the Sanctuary please visit our web site at: <http://www.olympiccoast.noaa.gov>.

To learn more about the Sanctuary Advisory Council please visit:
http://olympiccoast.noaa.gov/involved/sac/sac_welcome.html

The Office of National Marine Sanctuaries

The Olympic Coast National Marine Sanctuary is one of 14 marine protected areas in the National Marine Sanctuary System encompassing more than 150,000 square miles of marine and Great Lakes waters from Washington State to the Florida Keys, and from Lake Huron to American Samoa. The system includes 13 national marine sanctuaries and the Papahānaumokuākea Marine National Monument. Visit the ONMS web site at: <http://www.sanctuaries.nos.noaa.gov/>

Get involved!

To learn how to get involved in the Sanctuary visit:
<http://olympiccoast.noaa.gov/involved/welcome.html>

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